

## HUMAN MICA PROTEIN, HIS TAG

**Cat.#:** 11263

**Product Name:** Human MICA Protein

**Size:** 10 µg, 50 µg and 100 µg

**Synonyms:** MIC-A;PERB11.1

**Target:** MICA

**UNIPROT ID:** Q29983

**Description:** Recombinant Human MICA Protein with C-terminal 6xHis tag

**Background:** This gene encodes the highly polymorphic major histocompatibility complex class I chain-related protein A. The protein product is expressed on the cell surface, although unlike canonical class I molecules it does not seem to associate with beta-2-microglobulin. It is a ligand for the NKG2-D type II integral membrane protein receptor. The protein functions as a stress-induced antigen that is broadly recognized by intestinal epithelial gamma delta T cells. Variations in this gene have been associated with susceptibility to psoriasis I and psoriatic arthritis, and the shedding of MICA-related antibodies and ligands is involved in the progression from monoclonal gammopathy of undetermined significance to multiple myeloma. Alternative splicing of this gene results in multiple transcript variants. [provided by RefSeq, Jan 2014]

**Species/Host:** HEK293

**Molecular Weight:** The protein has a predicted molecular mass of 33.5 kDa after removal of the signal peptide. The apparent molecular mass of MICA-His is approximately 55-70 kDa due to glycosylation.

**Molecular Characterization:** MICA (Glu24-Trp307) 6xHis tag

**Purity:** The purity of the protein is greater than 95% as determined by SDS-PAGE and Coomassie blue staining.

**Formulation & Reconstitution:** Lyophilized from nanodisc solubilization buffer (20 mM Tris-HCl, 150 mM NaCl, pH 8.0). Normally 5% – 8% trehalose is added as protectants before lyophilization.

**Storage & Shipping:** Store at -20°C to -80°C for 12 months in lyophilized form. After reconstitution, if not intended for use within a month, aliquot and store at -80°C (Avoid repeated freezing and thawing). Lyophilized proteins are shipped at ambient temperature.

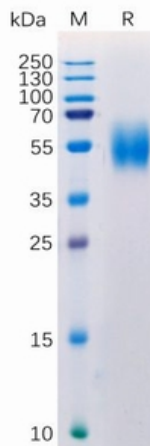


Figure 1. Human MICA Protein, His Tag on SDS-PAGE under reducing condition.

## Human MICA, His Tagged protein ELISA

0.2  $\mu$ g of MICA, His Tagged protein per well

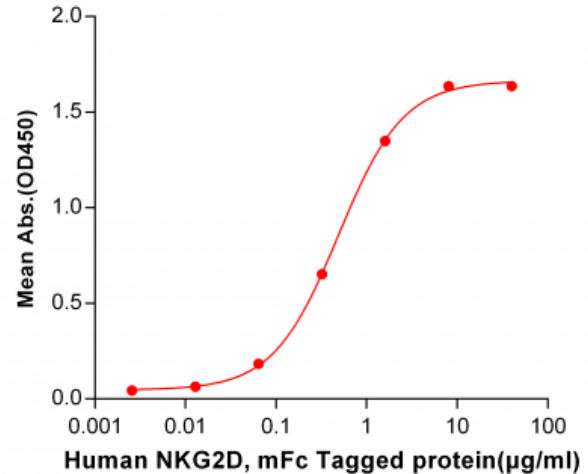


Figure 2. ELISA plate pre-coated by 2  $\mu$ g/ml (100  $\mu$ l/well) Human MICA, His tagged protein (11263) can bind Human NKG2D, mFc tagged protein (11200) in a linear range of 0.064-1.6  $\mu$ g/ml.

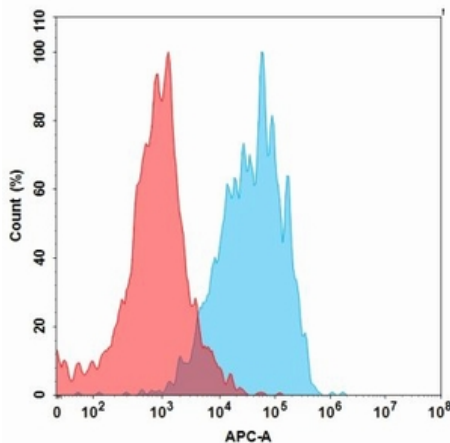


Figure 3. Flow cytometry analysis with 15  $\mu$ g/ml Human MICA Protein, His Tag (11263) on Expi293 cells transfected with Human NKG2D protein and Human DAP10 protein (Blue histogram) or Expi293 transfected with irrelevant protein (Red histogram).